

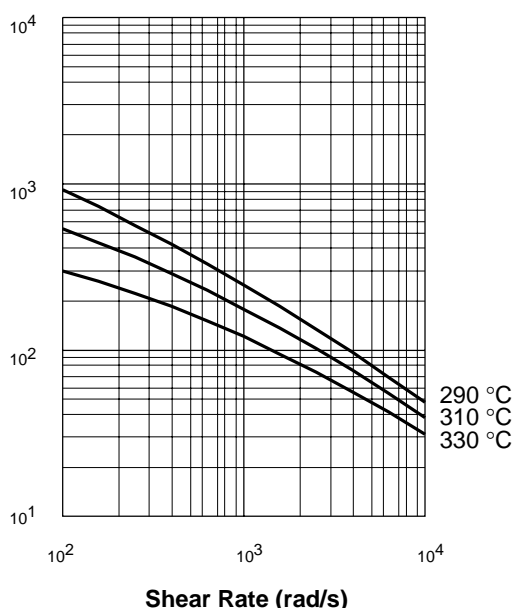
SILTEM-STM1500

SILTEM STM1500 is a flexible siloxane-polyetherimide copolymer for cable and wire coatings. Non-halogenated and

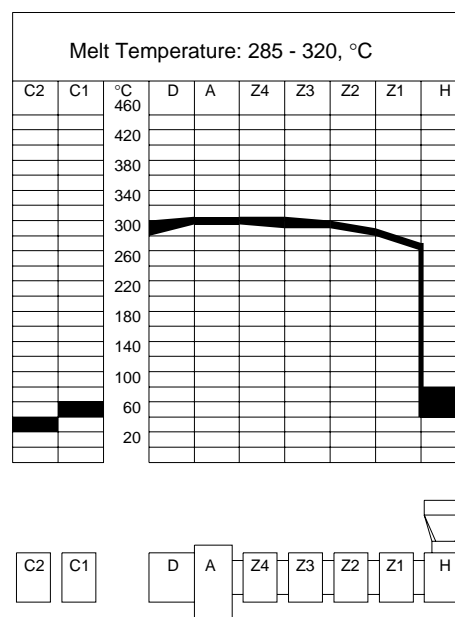
very low smoke evolution, corrosivity and toxicity.

RHEOLOGY

Melt Viscosity (Pa.s)



PROCESSING CONDITIONS



Predrying temperature/time : 105 - 110°C / 5-7 hrs
Recommended melt temperature : 300 - °C
Recommended calibration temperature: 70 - °C

TYPICAL PROPERTIES ¹⁾	TYPICAL VALUE	UNIT	STANDARD
PHYSICAL			
Mould Shrinkage on Tensile Bar, flow 2)	1.2-1.4	%	ASTM D955
RHEOLOGICAL			
Density	1.18	g/cm ³	ISO 1183
Water Absorption (23 °C / sat.) 1L	0.12	%	ISO 62
Melt Volume Rate, MVR 320 °C / 2.16 kg	8	cm ³ /10min.	ISO 1133

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SILTEM-STM1500

TYPICAL PROPERTIES ¹⁾	TYPICAL VALUE	UNIT	STANDARD
MECHANICAL			
Hardness, Shore D	69	-	ASTM D2240
Taber Abrasion, CS-17, 1 kg	60	mg/1000cy	GE
Tensile Stress at yield, 50 mm/min	20	MPa	ISO 527
Tensile Stress at break, 50 mm/min	25	MPa	ISO 527
Tensile Strain at yield, 50 mm/min	15.0	%	ISO 527
Tensile Strain at break, 50 mm/min	110	%	ISO 527
Tensile Modulus, 1 mm/min	590	MPa	ISO 527
Flexural Strength at yield, 2 mm/min	20	MPa	ISO 178
Flexural Strength at break, 2 mm/min	18	MPa	ISO 178
Flexural Modulus, 2 mm/min	475	MPa	ISO 178
IMPACT			
Izod Impact, unnotched 80*10*4 +23 °C	NB	kJ/m ²	ISO 180/1U
Izod Impact, unnotched 80*10*4 - 30 °C	NB	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23 °C	25	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 - 30 °C	15	kJ/m ²	ISO 180/1A
THERMAL			
Coeff. of Lin. Therm. Exp. flow 23 ÷ 80 °C	11 E-5	1/°C	ISO 11359-2
Coeff. of Lin. Therm. Exp. xflow 23 ÷ 80 °C	9 E-5	1/°C	ISO 11359-2
Ball Pressure Test, 75 °C ± 2 °C	PASSES	-	IEC 60695-10-2
Vicat B/50	75	°C	ISO 306
Vicat B/120	78	°C	ISO 306
FLAMMABILITY			
94V-1 Flame Class Rating 3) 4)	1.60	mm	UL94 by GE
Glow Wire Test, 960 °C, Passes at	3.2	mm	IEC 60695-2-12
Oxygen Index 3)	48	%	ISO 4589
ELECTRICAL			
Volume Resistivity	47 E13	Ohm-m	IEC 60093
Surface Resistivity, ROA	>1 E15	Ohm	IEC 60093
Dielectric Strength, in oil, 3.2 mm	19.0	kV/mm	IEC 60243
Relative Permittivity, 100 Hz	3.0	-	IEC 60250
Dissipation Factor, 100 Hz	0.0091	-	IEC 60250
Comparative Tracking Index	175	V	IEC 60112/3rd
Comparative Tracking Index, M	100	V	IEC 60112/3rd

- 1) Typical values only. Variations within normal tolerances are possible for various colours. All values are measured at least after 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume rate, are measured on extruded samples. All samples are prepared according ISO 294.

- 2) Only typical data for material selection purposes. Not to be used for part or tool design.
3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.
4) Own measurement according to UL.



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